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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/812,181

**Applicant(s)**

CORBIN, SCOTT A.

**Examiner**

JAMES R. MARANDI

**Art Unit**

2421

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/US)  
Paper No(s)/Mail Date 12/22/2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 12/22/08 was filed after the mailing date of the first office action on 8/19/08. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is considered by the examiner.

### ***Response to Amendment***

2. This action is in response to applicant's amendment filed on 12/22/08. Claims 1-26 are presently pending.

In view of applicant's amendment:

- Objection to the title of invention is withdrawn
- Objection to typographical errors in the specification is withdrawn
- The newly submitted abstract is acceptable
- Rejection of claims 1-26 under § 35 USC 112 first paragraph is withdrawn

***Response to Arguments***

3. Applicant's arguments filed 12/22/08 have been fully considered but they are not persuasive.

3.1. In response to applicant's argument that there is no suggestion to combine the Coutinho and Citta references (Page 11 of Remarks, 3<sup>rd</sup> Paragraph), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to modify Continuo's system is clearly spelled out by Citta in his disclosure of background of invention. Citta describes two-way CATV system and use of frequency diversity to accommodate both upstream and downstream signals (Col. 1, lines 40- 53). Citta discloses that in such large networks, upstream signal multiplexing poses challenges in timing of subscribers' upstream transmissions (Col. 1, lines 54- 57). He then presents a multitude of solutions and corresponding issues in managing timing of upstream signals (Col. 1, line 57 through Col. 2, line 66), and then proceeds to disclose his invention where he presents a time-slotted "Aloha" two-way CATV system using

contention techniques for upstream data communication in which upstream data transmission synchronization is based on downstream program VBI timing.

3.2. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (Page 11 of Remarks, 6<sup>th</sup> paragraph), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The motivation to combine Coutinho and Citta was described above. Hutchinson reference was used to teach that at the time of invention, the use of **plurality of amplifiers** in various networks, for various design purposes including signal blocking was notoriously well known in the art. Furthermore, amplifiers were known to have **input and output ports** for **receiving and transmitting signals**. As such, Hutchinson confirms the state of art at the time of invention and addresses language used in the claims by the applicant.

Therefore, examiner respectfully submits that the three way combination of prior art, as presented, is in accord with 35 USC § 103.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

- 4.1. Claims 1-21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 10/812,241. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-21 of the copending application are broader in scope than claims 1-25 of the instant

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application and therefore an obvious variant as will be shown below. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Instant Application	Copending Application 10/812,241
<p>Claim 1: A video system, comprising:  a video source operable to transmit an <b>output signal</b> on a transmission line, <b>the output signal having a format such that first portions of the output signal include active video signals and second portions of the output signal lack active video signals</b>;  a plurality of video receivers, each said receiver being operable to <b>display images based upon the active video signals</b> and to transmit a respective data signal on a respective one of a plurality of ports; and  a distribution device electrically connected to said transmission line and to each of said ports, said distribution device being operable to transmit each of the data signals to said video source on said transmission line <b>only during time periods when the second portions of the output signal are being transmitted on said transmission line</b>, said distribution device including a plurality of amplifiers, each said amplifier having an input and an output, each said amplifier being operable to receive signals on said input for transmission on said output as amplified signals, each said amplifier being operable to block signals received on said output from being transmitted on said input, each said amplifier being operable to transmit a respective said amplified signal to a respective one of said receivers on a respective one of said ports, each of the amplified signals being dependent upon <b>the output signal</b> and upon a data signal <b>transmitted on said transmission line</b> from the receivers other than said respective receiver.</p>	<p>Claim 1: A video system, comprising:  a video source operable to transmit an <b>active video signal</b> on a transmission line;  a plurality of video receivers, each said receiver being operable to transmit a respective data signal on a respective one of a plurality of ports; and  a distribution device electrically connected to said transmission line and to each of said ports, said distribution device being operable to transmit each of the data signals to said video source on said transmission line, said distribution device including a plurality of amplifiers, each said amplifier having an input and an output, each said amplifier being operable to receive signals on said input for transmission on said output as amplified signals, each said amplifier being operable to block signals received on said output from being transmitted on said input, each said amplifier being operable to transmit a respective said amplified signal to a respective one of said receivers on a respective one of said ports, each of the amplified signals being dependent upon the active video signal and upon a data signal from the receivers other than said respective receiver <b>so that both the active video signal from the video source and a data signal from the receivers other than the respective receiver are transmitted to the respective receiver via said respective port.</b></p>

The differences in claim one of the instant application and the copending application are highlighted above. Claim 1 of the instant application recites an output signal comprising two portions, one with active video, the other lacking active video. Official notice is taken that a video source (TV signal) contains active component and a portion which lacks video signal (VBI region). Therefore, it would be obvious to one of ordinary skill in the art to use a TV signal as the video source in the system of copending application in order to provide an active video and a VBI region (lacking active video) to provide additional data (e.g. teletext systems) to various nodes in the network (receivers) during the VBI intervals in order to reduce interference into active video, improve quality of the video signal, optimize the bandwidth utilization, and provide for upstream and downstream communications between receivers and transmitters.

The dependent Claims 2- 7 of the instant application differ from dependent claims 2-7 of the copending application only by the difference in the recitation of the "output signal" and "active video signal", and are provisionally rejected by the same analysis as for claims 1.

Instant Application	Copending Application 10/812,241
Claim 8: A video system, comprising: a video source operable to transmit an <b>output signal</b> on a transmission line, <b>the output signal having a format such that first portions of the output signal include active video signals and second portions of the output signal lack active video signals;</b>	Claim 8: A video system, comprising: a video source operable to transmit an <b>active video signal</b> on a transmission line;



<p>a plurality of video receivers, each said receiver being operable to <b>display images based upon the active video signals</b> and to transmit a respective data signal on a respective <b>one of a plurality of ports</b>; and</p> <p>a distribution device in electrical communication with said transmission line and with each of said ports, said distribution device being operable to transmit each of the data signals to said video source <b>on said transmission line only during time periods when the second portions of the output signal are being transmitted on said transmission line</b>, said distribution device including a plurality of active devices, each said active device being operable to transmit a respective active-device-signal to a respective one of said receivers on a respective one of said ports, each of the active-device-signals being dependent upon the <b>output signal and upon at least one of the data signals transmitted on said transmission line</b> from the receivers other than said respective receiver.</p>	<p>a plurality of video receivers, each said receiver being operable to transmit a respective data signal on a respective port; and</p> <p>a distribution device in electrical communication with said transmission line and with each of said ports, said distribution device being operable to transmit each of the data signals to said video source, said distribution device including a plurality of active devices, each said active device being operable to transmit a respective active-device-signal to a respective one of said receivers on a respective one of said ports, each of the active-device-signals being dependent upon the active video signal and upon at least one of the data signals from the receivers other than said respective receiver <b>so that both the active video signal from the video source and at least one of said data signals from the receivers other than said respective receiver are transmitted to said respective receiver via said respective port.</b></p>
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The differences in claim eight of the instant application and the copending application are highlighted above. Claim 8 of the instant application recites an output signal comprising two portions, one with active video, the other lacking active video. Official notice is taken that a video source (TV signal) contains active component and a portion which lacks video signal (VBI region). Therefore, it would be obvious to one of ordinary skill in the art to use a TV signal as the video source in the system of copending application in order to provide an active video and a VBI region (lacking active video) to provide additional data (e.g. teletext systems) to various nodes in the network (receivers) during the VBI intervals in order to reduce interference into active video, improve quality of the video signal, optimize the bandwidth utilization, and provide for upstream and downstream communications between receivers and transmitters.

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The dependent Claims 9- 15 of the instant application differ from dependent claims 9- 15 of the copending application only by the difference in the recitation of the "output signal" and "active video signal", and are provisionally rejected by the same analysis as for claims 8.

Instant Application	Copending Application 10/812,241
<p>Claim 16: A video distribution apparatus, comprising:</p> <p>a first port configured to be electrically connected to a video source <b>and to receive an output signal from the video source, the output signal having a format such that first portions of the output signal include active video signals and second portions of the output signal lack active video signals;</b></p> <p>a plurality of second ports, each said second port being configured to be electrically connected to a respective video receiver;</p> <p>a plurality of active devices, each said active device having an input and an output, each said output being electrically connected to a corresponding one of said second ports, each said input being configured to receive <b>the output signal</b> from the video source via said first port; and</p> <p>bypass circuitry <b>including a synchronization device operable to identify when the first portions of the output signal are received by said first port and when the second portions of the output signal are received by said first port,</b> said bypass circuitry being operable to transmit data signals from each of said second ports to said first port and to said inputs of said active devices such that:</p> <p>the data signals bypass said active devices; <b>the first portions of the output signal are received by said first port during first periods in time, the data signals are received by said first port during second periods in time, the first periods in time and the second periods in time being mutually exclusive; and</b></p>	<p>Claim 16: A video distribution apparatus, comprising:</p> <p>a first port configured to be electrically connected to a video source;</p> <p>a plurality of second ports, each said second port being configured to be electrically connected to a respective video receiver;</p> <p>a plurality of active devices, each said active device having an input and an output, each said output being electrically connected to a corresponding one of said second ports, each said input being configured to receive <b>active video signals</b> from the video source via said first port; and</p> <p>bypass circuitry operable to transmit data signals from each of the second ports to the first port and to the inputs of said active devices such that the data signals bypass said active devices <b>each said active device being operable to transmit both active video signals from the video source and the data signals from said second ports received at the input of said active device to the second port corresponding to said active device.</b></p>

<b>the first portions of the output signal are received by said inputs of said active devices during third periods in time, the data signals are received by said inputs of said active devices during fourth periods in time, the third periods in time and the fourth periods in time being mutually exclusive.</b>	
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The differences in claim sixteen of the instant application and the copending application are highlighted above. Claim 16 of the instant application recites an output signal comprising two portions, one with active video, the other lacking active video. Official notice is taken that a video source (TV signal) contains active component and a portion which lacks video signal (VBI region). Therefore, it would be obvious to one of ordinary skill in the art to use a TV signal as the video source in the system of copending application in order to provide an active video and a VBI region (lacking active video) to provide additional data (e.g. teletext systems) to various nodes in the network (receivers) during the VBI intervals in order to reduce interference into active video, improve quality of the video signal, optimize the bandwidth utilization, and provide for upstream and downstream communications between receivers and transmitters.

The dependent Claims 17- 21 of the instant application differ from dependent claims 17- 21 of the copending application only by the difference in the recitation of the "output signal" and "active video signal", and are provisionally rejected by the same analysis as for claims 16.

4.2. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

4.3. Though applicant has filed a terminal disclaimer on July 8<sup>th</sup>, 2008 in application 10/812,241, since both instant and copending applications were filed on the same day, MPEP 1490 Section V. Part D requires " ***If both applications are filed on the same day, \*\*>the provisional ODP rejection made in each of the applications should be maintained until applicant overcomes the rejections by either filing a reply showing that the claims subject to the provisional ODP rejections are patentably distinct or filing a terminal disclaimer in each of the pending applications.***" Therefore, applicant must file a reply showing that the claims subject to the provisional ODP rejection are patentably distinct or file a terminal disclaimer, for the record, in the instant application.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1- 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over R.S. Coutinho, USPN 5,760,822 (hereinafter "Coutinho") in view of D.M. Hutchinson, USPN 6,738,098 (hereinafter "Hutchinson") in further view of R.W. Citta, USPN 4,553,161 (hereinafter "Citta").

- 6.1.** Regarding claim 1 Coutinho discloses **a video system (Fig. 4) comprising:**
- a video source (A) operable to transmit an output signal on a transmission line (204), the output signal having a format such that the first portions of the output signal include active video signals and second portions of the output signal lack active video signals** (the active video signal of any TV signal only occupy a portion- 5 to 6 MHz of the overall bandwidth of 50-450 MHz shown in Fig. 5. Therefore, the output signal, as whole, has a large

portion where the particular TV signal is not present in. This includes the upstream return channel of 6-11 MHz);

**a plurality of video receivers (208), each said receiver being operable to display images based upon the active video signals (Col. 5, lines 2- 9) and to transmit a respective data signal on a respective one of a plurality of ports (Col. 5, lines 23- 36; ports are connection points shown on devices 206, and 208); and**

**a distribution device (200) electrically connected to said transmission line (204) and to each of said ports (connection points to devices 206, and 208), said distribution device being operable to transmit each of the data signals to said video source on said transmission line.**

Coutinho is silent on **distribution device including a plurality of amplifiers**. However, the use of **plurality of amplifiers** in various networks, for various design purposes including signal blocking was notoriously well known in the art as evidenced by (Fig. 1A).

Therefore, it would have been obvious to one of ordinary skills in the art, at the time of invention, to modify the system of Coutinho with Hutchinson's plurality of amplifiers in order to improve the quality and range of the signal while blocking unwanted signals.

The system of Coutinho and Hutchinson disclose **each amplifier having an input** (Coutinho; from adder 218) **and an output** (to HP filter 220), **each said amplifier being operable to receive signals on said input for transmission on said output as amplified signals** (Col. 5, lines 40- 44), **each said amplifier being operable to block signals received on said output from being transmitted on said input** (Col. 5, lines 44- 50, and Col. 6, lines 34- 36), **each said amplifier being operable to transmit a respective said amplified signal to a respective one of said receivers on a respective one of said ports** (Col. 5, lines 44- 50), **each of the amplified signals being dependent upon the output signal (A) and upon a data signal transmitted on said transmission line from the receivers other than said respective receiver** (Col. 6, lines 4- 32)

The system of Coutinho and Hutchinson fails to disclose transmitting each of the data signals to said video source on said transmission line **only during time periods when the second portions of the output signal are being transmitted on said transmission line.**

However, Citta, in an analogous art, discloses transmitting each of the data signals to said video source on said transmission line **only during time periods when the second portions of the output signal are being transmitted on**

**said transmission line** (Col. 3, lines 48- 66; Col. 4, line 22 through Col. 5, lines 3).

Therefore, it would have been obvious to one of ordinary skills, at the time of invention, to modify the system of Coutinho and Hutchinson with Citta's invention in order to effectively manage the timing and communication amongst receivers and transmitters.

6.1.1. Regarding claim 2, the system of Coutinho, Hutchinson, and Citta discloses **wherein the data signals transmitted by said receivers comprise upstream data signals** (Coutinho's Fig. 4 shows that receiver/TV and transmitter VCR combination 206 and 208 transmit upstream data on lines 248, or through modulators 222), **the second portions of the output signal comprising downstream data signals** (the portion of 50- 450 MHz bandwidth lacking the active video signal of interest may contain any type of signal), **said video source being operable to transmit the output signal on said transmission line** (transmission line connecting 207, 212, 21B, 214, 220, 224, 244, 246 to 230 and 240), **each said amplified signal being dependent upon the active video signal, the downstream data signal, and an upstream data signal from a receiver other than said respective receiver** (the amplified signal at the output of amplifier 214 is dependent on



downstream data from A, and signals from 206 A and 206 B coupling through 224 to 226 A to 210, to 218. However, as Citta disclosed the upstream signal from 206 A and B are only transmitted based on the timing allowed; Citta, Col. 4, line 44 through Col. 5, line 17).

6.1.2. Regarding claim 3, the system of Coutinho, Hutchinson, and Citta discloses **wherein each said amplified signal is dependent upon the output signal and upon each of the data signals from the receivers other than said respective receiver.** (The amplified signal at the output of amplifier 214 is dependent on downstream data from A, and signals from 206 A and 206 B coupling through 224 to 226 A to 210, to 218. However, as Citta disclosed the upstream signal from 206 A and B are only transmitted based on the timing allowed; Citta, Col. 4, line 44 through Col. 5, line 17)

6.1.3. Regarding claim 4 the system of Coutinho, Hutchinson, and Citta discloses **wherein each said amplifier comprises a one-way active device that transmits signals only on its output.** (Coutinho: Fig. 4, 114; Col. 5, lines 41- 47).

6.1.4. Regarding claims 5 the system of Coutinho, Hutchinson, and Citta discloses **wherein said distribution device includes bypass circuitry operable to transmit the data signals from each of the receivers to the**

**transmission line and to the inputs of said amplifiers such that the data signals bypass said amplifiers.** (Coutinho: Fig. 4, path 206A to 222A to 244 to B to 224 to 232 to 226 A to 228 to 210 to 218 bypasses the amplifier 214; Col. 6, lines 4- 45, enabling devices connected to ports 246 to communicate with devices connecting to port 250 while communicating with video source connected to port 207)

6.1.5. Regarding claims 6 the system of Coutinho, Hutchinson, and Citta discloses **wherein said bypass circuitry is operable to transmit the data signals from each of the receivers to the transmission line and to the inputs of all of said amplifiers not corresponding to said receiver from which said data signal originates.** (Coutinho: Col. 6, lines 4- 67; Col. 7, lines 1-38)

6.1.6. Regarding claims 7 the system of Coutinho, Hutchinson, and Citta discloses **wherein said transmission line comprises a coaxial cable.** (Coutinho: Col. 4, line 64)

7. Claims 8- 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coutinho, in view of Citta.

7.1. Regarding claim 8 Coutinho discloses a video system (Fig. 4) comprising:

**a video source (A) operable to transmit an output signal on a transmission line (204), the output signal having a format such that the first portions of the output signal include active video signals and second portions of the output signal lack active video signals** (the active video signal of any TV signal only occupy a portion- 5 to 6 MHz of the overall bandwidth of 50-450 MHz shown in Fig. 5. Therefore, the output signal, as whole, has a large portion where the particular TV signal is not present in. This includes the upstream return channel of 6-11 MHz);

**a plurality of video receivers (208), each said receiver being operable to display images based upon the active video signals** (Col. 5, lines 2- 9) **and to transmit a respective data signal on a respective one of a plurality of ports** (Col. 5, lines 23- 36; ports are connection points shown on devices 206, and 208); and

**a distribution device (200) in electrical communication with said transmission line (204) and with each of said ports** (connection points to devices 206, and 208), **said distribution device being operable to transmit each of the data signals to said video source on said transmission line, said distribution device including a plurality of active devices** (network of Fig. 4 consist of many active device/ components such as 204, 207, 212, 218,

214, 206, etc.), **each said active device being operable to transmit a respective active-device-signal to a respective one of said receivers on a respective one of said ports** (active devices on transmission line connecting 207, 212, 21B, 214, 220, 224, 244, 246 to 230 and 240), **each of the active-device-signals being dependent upon the output signal and upon at least one of the data signals transmitted on said transmission line from the receivers other than said respective receiver** (each active device signal, e.g. the amplified signal at the output of amplifier 214, is dependent on downstream data from A, and signals from 206 A and 206 B coupling through 224 to 226 A to 210, to 218. However, as Citta disclosed the upstream signal from 206 A and B are only transmitted based on the timing allowed; Citta, Col. 4, line 44 through Col. 5, line 17)).

Coutinho is silent on transmitting each of the data signals to said video source on said transmission line **only during time periods when the second portions of the output signal are being transmitted on said transmission line.**

However, Citta, in an analogous art, discloses transmitting each of the data signals to said video source on said transmission line **only during time periods when the second portions of the output signal are being transmitted on said transmission line** (Col. 3, lines 48- 66; Col. 4, line 22 through Col. 5, lines 3).

Therefore, it would have been obvious to one of ordinary skills, at the time of invention, to modify the system of Coutinho with Citta's invention in order to effectively manage the timing and communication amongst receivers and transmitters.

7.1.1. Regarding claim 9, **wherein each said active device has an input and an output** (Coutinho, Fig. 4, 214 has an input coming from 218 and output to 220), **each said active device being operable to pass signals from said input to said output (214) and to prevent signals from passing through said active device from said output to said input (214).**

7.1.2. Regarding claim 10, the system of Coutinho, Hutchinson, and Citta discloses **wherein the data signals transmitted by said receivers comprise upstream data signals** (Coutinho's Fig. 4 shows that receiver/TV and transmitter VCR combination 206 and 208 transmit upstream data on lines 248, or through modulators 222), **the second portions of the output signal comprising downstream data signals** (the portion of 50- 450 MHz bandwidth lacking the active video signal of interest may contain any type of signal), **said video source being operable to transmit the output signal**

**on said transmission line** (transmission line connecting 207, 212, 21B, 214, 220, 224, 244, 246 to 230 and 240), **each said amplified signal being dependent upon the active video signal, the downstream data signal, and an upstream data signal from a receiver other than said respective receiver** (the amplified signal at the output of amplifier 214 is dependent on downstream data from A, and signals from 206 A and 206 B coupling through 224 to 226 A to 210, to 218. However, as Citta disclosed the upstream signal from 206 A and B are only transmitted based on the timing allowed; Citta, Col. 4, line 44 through Col. 5, line 17).

7.1.3. Regarding claim 11, **wherein each said active-device-signals being dependent upon the output signal and upon each of the data signals from the receivers other than said respective receiver** (each active device signal, e.g. the amplified signal at the output of amplifier 214, is dependent on downstream data from A, and signals from 206 A and 206 B coupling through 224 to 226 A to 210, to 218. However, as Citta disclosed the upstream signal from 206 A and B are only transmitted based on the timing allowed; Citta, Col. 4, line 44 through Col. 5, line 17)..

7.1.4. Regarding claim 12 **wherein each said amplifier comprises a one-way active device that transmits signals only on its output.** (Coutinho: Fig. 4,

114; Col. 5, lines 41- 47).

7.1.5. Regarding claims 13 **wherein said distribution device includes bypass circuitry operable to transmit the data signals from each of the receivers to the transmission line and to the inputs of said amplifiers such that the data signals bypass said amplifiers.** (Coutinho: Fig. 4, path 206A to 222A to 244 to B to 224 to 232 to 226 A to 228 to 210 to 218 bypasses the amplifier 214; Col. 6, lines 4- 45, enabling devices connected to ports 246 to communicate with devices connecting to port 250 while communicating with video source connected to port 207)

7.1.6. Regarding claims 14 **wherein said bypass circuitry is operable to transmit the data signals from each of the receivers to the transmission line and to the inputs of all of said amplifiers not corresponding to said receiver from which said data signal originates.** (Coutinho: Col. 6, lines 4- 67; Col. 7, lines 1-38)

7.1.7. Regarding claim 15 **wherein said transmission line comprises a coaxial cable.** (Coutinho: Col. 4, line 64)

7.2. Regarding claim 16, Coutinho discloses **A video distribution apparatus** (Fig. 4), **comprising:**

**a first port configured to be electrically connected to a video source and to receive an output signal from the video source** (207 is connected to video source A through 204), **the output signal having a format such that first portions of the output signal include active video signals and second portions of the output signal lack active video signals** (the active video signal of any TV signal only occupy a portion- 5 to 6 MHz of the overall bandwidth of 50-450 MHz shown in Fig. 5. Therefore, the output signal, as whole, has a large portion where the particular TV signal is not present in. This includes the upstream return channel of 6-11 MHz);

**a plurality of second ports, each said second port being configured to be electrically connected to a respective video receiver** (246 and 250 where connections to devices 206 and 208 is made);

**a plurality of active devices, each said active device having an input and an output, each said output being electrically connected to a corresponding one of said second ports, each said input being configured to receive the output signal from the video source via said first port** ( module 200 comprising of active devices, e.g. 214, connects 1st and 2nd ports, 207, 246, and 250); **and**



**bypass circuitry including a synchronization device operable to identify when the first portions of the output signal are received by said first port and when the second portions of the output signal are received by said first port, said bypass circuitry being operable to transmit data signals from each of said second ports to said first port and to said inputs of said active devices** (bypass circuitry comprises elements 232, 226A, 210, and 226B, Col. 6, lines 33- 59) **such that:**

**the data signals bypass said active devices** (the data signals traveling on path 232, 228, and 234 bypass the downstream signal traveling on 207, 212, 218, 214, 220, to 224, which is a combination of active devices. Though the bypass circuitry is shown integrated with module 200, an artisan may separate these functions into two components);

Coutinho signals use frequency shifting/ diversity therefore they are sent and received by said ports at anytime, said times not being mutually exclusive.

Therefore Coutinho fails to disclose:

**the first portions of the output signal are received by said first port during first periods in time, the data signals are received by said first port during second periods in time, the first periods in time and the second periods in time being mutually exclusive;**

**and the first portions of the output signal are received by said inputs of said active devices during third periods in time, the data signals are**

**received by said inputs of said active devices during fourth periods in time, the third periods in time and the fourth periods in time being mutually exclusive.**

However, Citta discloses communicating amongst the ports only during select times as regulated by codes generated and associated with the individual device addresses (Col. 4, line 44 through Col. 5, lines 3). Therefore, the times allotted to each device are mutually exclusive as each device has a unique address and no two device may communicate at the same time.

Therefore, it would have been obvious to one of ordinary skills, at the time of invention, to modify the system of Coutinho with Citta's invention in order to effectively manage the timing and communication amongst receivers and transmitters.

7.2.1. Regarding claims 17 **wherein said bypass circuitry is operable to transmit the data signals from each of the receivers to the transmission line and to the inputs of all of said amplifiers not corresponding to said receiver from which said data signal originates.**  
(Coutinho: Col. 6, lines 4- 67; Col. 7, lines 1-38)

7.2.2. Regarding claim 18, **wherein each said active device is operable to pass signals from said input to said output and to prevent signals from passing through said active device from said output to said input**, Coutinho's node converter module 200 comprises an active device comprising 218, 214, 220, and 224 which allows signals to pass in one direction, downstream. Upstream signals travel through a separate path 232, 228 and 234. An artisan may realize the functionality of these components through separate devices or integrated them all into one electronic fabric.

7.2.3. Claim 19 is rejected as claim 18.

7.2.4. Regarding claim 20 wherein **each said active device comprises a one-way active device that transmits signals only on its output**. (Coutinho: Fig. 4, 114; Col. 5, lines 41- 47).

7.2.5. Regarding claims 21 **wherein said bypass circuitry is operable to transmit the data signals from each of the second ports to the first port and to the inputs of only said active devices other than said active device that corresponds to said second port from which said signal originates**. (Coutinho: Fig. 4, path 206A to 222A to 244 to B to 224 to 232 to 226 A to 228 to 210 to 218 bypasses the amplifier 214; Col. 6, lines 4- 45,

enabling devices connected to ports 246 to communicate with devices connecting to port 250 while communicating with video source connected to port 207)

7.2.6. Regarding claim 22, **wherein the first periods in time correspond to the third periods in time, and the second periods in time correspond to the fourth periods in time.** As described since each signal is divided to two period, period one contains active video, period two (VBI) data, therefore in sequence odd numbered period (1, 3) contain video, and even numbered (2,4) contain data.

7.2.7. Claim 23 recites the physical components effectuating claim 16 and is rejected by the same analysis.

7.3. Regarding claim 24, Coutinho discloses **A video distribution apparatus (Fig. 4), comprising:**

**a first port configured to be electrically connected to a video source and to receive an output signal from the video source (207 is connected to video source A through 204), the output signal having a format such that first portions of the output signal include active video signals and second portions of the output signal lack active video signals** (the active video signal

of any TV signal only occupy a portion- 5 to 6 MHz of the overall bandwidth of 50-450 MHz shown in Fig. 5. Therefore, the output signal, as whole, has a large portion where the particular TV signal is not present in. This includes the upstream return channel of 6-11 MHz);

**a second port configured to be electrically connected to a video receiver** (246 and 250 where connections to devices 206 and 208 is made);

**an active devices having an input and an output, said output being electrically connected to said second ports, said input being configured to receive the output signal from the video source via said first port** ( module 200 comprising of active devices, e.g. 214, connects 1st and 2nd ports, 207, 246, and 250); and

**bypass circuitry including a synchronization device operable to identify when the first portions of the output signal are received by said first port and when the second portions of the output signal are received by said first port, said bypass circuitry being operable to transmit data signals from each of said second ports to said first port and to said inputs of said active devices** (bypass circuitry comprises elements 232, 226A, 210, and 226B, Col. 6, lines 33- 59) **such that:**

**the data signals bypass said active devices** (the data signals traveling on path 232, 228, and 234 bypass the downstream signal traveling on 207, 212, 218, 214, 220, to 224, which is a combination of active devices. Though the

bypass circuitry is shown integrated with module 200, an artisan may separate these functions into two components);

Coutinho signals use frequency shifting/ diversity therefore they are sent and received by said ports at anytime, said times not being non-overlapping.

Therefore Coutinho fails to disclose:

**the first portions of the output signal are received by said first port during first periods in time, the data signals are received by said first port during second periods in time, the first periods in time and the second periods in time being non-overlapping.**

However, Citta discloses communicating amongst the ports only during select times as regulated by codes generated and associated with the individual device addresses (Col. 4, line 44 through Col. 5, lines 3). Therefore, the times allotted to each device are non-overlapping as each device has a unique address and no two device may communicate at the same time.

Therefore, it would have been obvious to one of ordinary skills, at the time of invention, to modify the system of Coutinho with Citta's invention in order to effectively manage the timing and communication amongst receivers and transmitters.

7.3.1. Regarding claim 25 **wherein each said active device comprises a one-way active device that transmits signals only on its output.** (Coutinho: Fig. 4, 114; Col. 5, lines 41- 47).

7.3.2. Claim 26 recites the physical components effectuating claim 24 and is rejected by the same analysis.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Contacts***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES R. MARANDI whose telephone number is (571)270-1843. The examiner can normally be reached on 8:00 AM- 5:00 PM M-F, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit: 2421

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